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CIAIKODI

15CS42

Fourth Semester B.E. Degree Examination, Dec:S.
Software Engineering

Time: 3 hrs.

Max. Marks: 80

**Note: Answer any FIVE full questions, choosing
 ONE full question from each module.**

Module-1

- 1 a. What are the attributes of good software? (04 Marks)
- b. With a neat diagram, explain the requirement engineering process. (08 Marks)
- c. Explain four professional and ethical responsibilities of a software engineer. (04 Marks)

OR

- 2 a. List and explain the metiers used for specifying non-functional requirements. (05 Marks)
- b. With a neat block diagram, explain the spiral process model. (07 Marks)
- c. Define functional requirements and explain. (04 Marks)

Module-2

- 3 a. With a neat diagram, explain the rational unified process. (06 Marks)
- b. Draw a state machine model of a simple microwave oven. (05 Marks)
- c. What are the different types of UML diagram? Explain. (05 Marks)

OR

- 4 a. What is design pattern? Explain four elements of design pattern. (06 Marks)
- b. What is reuse? Explain the types of reuse levels. (05 Marks)
- c. Write a short note on open source development. (05 Marks)

Module-3

- 5 a. Define the terms verification and validation. (02 Marks)
- b. What is interface testing? Explain the interface components and interface errors. (08 Marks)
- c. Explain test-driven development with diagram. (06 Marks)

OR

- 6 a. Explain the following : i) Release testing ii) Regression testing iii) Unit testing. (06 Marks)
- b. What is software testing? What are the distinct goals of testing process? Write the advantages of software inspection over testing? (06 Marks)
- c. Explain the Leman's law. (04 Marks)

Module-4

- 7 a. What are the factors affecting software pricing? Explain. (06 Marks)
- b. With a neat diagram, explain cocomo - II model. (10 Marks)

OR

- 8 a. Explain the activities involved in re-engineering process, with an illustrative figure. (08 Marks)
- b. What are estimation techniques? Explain. (08 Marks)

Module-5

- 9 a. What is program inspection? Write an inspection checklist. (08 Marks)
- b. Explain the practices involved in the extreme programming. (08 Marks)

OR

- 10 a. State the principles of agile methods. (06 Marks)
- b. Write a short note on : i) Pair programming ii) Refactoring. (10 Marks)